

**Appln No. 10/757,637**  
**Amdt date July 13, 2006**  
**Reply to Office action of January 13, 2006**

### **REMARKS/ARGUMENTS**

Claims 1-6, 10-18, and 20-23 are pending in the present application. No new amendments are presented. In the Office action dated January 13, 2006, claims 1-2 and 16 were rejected under §103 over U.S. PG Pub. No. 2003/0125994 by Jaehn et al. ("Jaehn") in view of U.S. PG Pub. No. 2004/0103092 by Tuzhilin et al. ("Tuzhilin"), in further view of U.S. PG Pub. No. 2002/0174005 by Chappel ("Chappel".) Claims 3, 17-18 and 20-21 were rejected under §103 over Jaehn in view of Tuzhilin, Chappel, and U.S. PG. Pub. No. 2004/0006507 by Laufer ("Laufer.") Claims 4-6 and 10-14 were rejected under §103 over Jaehn in view of Tuzhilin, Chappel, Laufer, and U.S. PG Pub. No. 2003/0040946 by Sprenger et al. ("Sprenger.") Claim 15 was rejected under §103 over Jaehn in view of Tuzhilin, Chappel, Laufer, Sprenger, and U.S. Patent No. 6,134,534 by Walker et al. ("Walker").

Applicant's representatives thank the Examiner for the courtesy of the Telephone Interview conducted on June 2, 2006.

#### **Claims 1-6**

Turning to the art used in the rejection of claim 1, Jaehn, currently assigned to Orbitz LLC, discloses, among other things, a method for displaying travel product search results, similar to those used by airfare search web sites. (See, e.g., Fig. 1).

Tuzhilin discloses, among other things, providing recommendations to a user based on the ratings provided by other users who are determined to be 'similar' to the first user. (See, e.g., Para. 49).

Chappel discloses, among other things, a system that utilizes correlation coefficients in the prediction of business activities. (See, e.g., Para. 8).

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Applicant's claim 1 recites, in part, **"calculating . . . one or more correlation coefficients for each of the one or more price affecting factors"** and **"calculating a cruise rating based on the pricing data, the one or more price affecting factors, and the one or more correlation coefficients."**

The Office action states that Jaehn does not disclose these elements. (See Office action, Page 3, Para. 1).

Tuzhilin also does not disclose these elements. The Office action states that Tuzhilin discloses that "customer preferences for vacation packages may be dependent on the [location and time of year of vacation] ... and collaborative-filtering approaches are used ... for providing recommendations/suggestions and to calculate/estimate ratings ... by locating n users who are 'similar' ... and the similarity distance between users can be computed with techniques known to persons with ordinary skill in the art, e.g., as a correlation coefficient between two rating vectors." (Office action, Page 3, Para. 1).

In this summary of Tuzhilin's relevant disclosure, though, the Examiner has combined the disclosures from generally unrelated portions of the disclosure. Specifically, the first sentence in the Examiner's summary relates to using customer preferences to select travel items (citing Tuzhilin, Para. 6) while the remainder of the summary relates to providing recommendations to a user based on the ratings provided by other users who are determined, in a process utilizing correlation coefficients, to be similar to the first user (citing Tuzhilin, Para. 49). It is important to recognize, though, that the discussion in Para. 49 regarding estimating unknown ratings is related to the portion of prior art discussed in the Background of the Invention in Paragraphs 4 and 5 regarding collaborative filtering. However, the collaborative filtering discussed in Paragraphs 4, 5, and 49 is a different issue from user preferences discussed in Paragraph 6. Indeed, the last sentence of Paragraph 5 points out this distinction, stating, "However, in numerous applications, e.g., recommending vacation packages, restaurants or Web content to customers, it may not be sufficient to recommend particular items to certain users or to suggest the users to the particular items." Accordingly, to the extent that the customer preferences discussed in Tuzhilin (e.g., Para. 6) may relate to the claimed price affecting factors,

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customer preferences are not used by Tuzhilin in the separate calculation of correlation coefficients based on other user's ratings (Paragraphs 4, 5 and 49). Accordingly, Tuzhilin does not disclose **"calculating . . . one or more correlation coefficients for each of the one or more price affecting factors"**. As Tuzhilin, among other things, does not disclose calculating the claimed correlation coefficients and as the ratings calculation in Tuzhilin based on other user's ratings is also not based on pricing data, Tuzhilin also does not disclose **"calculating a cruise rating based on the pricing data, the one or more price affecting factors, and the one or more correlation coefficients."**

Chappel also does not disclose these elements. Chappel discloses a generalized system that utilizes correlation coefficients in the prediction of business activities. Chappel further discloses a technique for automating the selection of correlation coefficients for use in such predictions. Using regression and correlation coefficients for the prediction of business activities in a general sense is very well known (as discussed in Paragraph 6 of Chappel, cited by the Examiner, that appears in the Description of Related Art section of Chappel). However, neither the use of correlation coefficients for the prediction of any manner of business activities or the automated selection of correlation coefficients to make such predictions adds anything relevant, with respect to claim 1, to the disclosure in Tuzhilin of using correlation coefficients calculated from other user's prior ratings information. Accordingly, Chappel also does not disclose **"calculating . . . one or more correlation coefficients for each of the one or more price affecting factors"** or **"calculating a cruise rating based on the pricing data, the one or more price affecting factors, and the one or more correlation coefficients."**

Therefore, claim 1 is believed to be allowable. Since claims 2-6 depend, directly or indirectly, from claim 1 and contain additional elements that are patentably distinguishable over the references of record, claims 2-6 are also believed to be allowable.

**Claims 10-15**

Claim 10 recites, in part,

“calculating, using a processor, a daily price for each of the one or more cruise ships using at least one price affecting factor;  
comparing the daily price for each of the one or more cruise ships with the pricing data for that ship over a period of time to determine a consistency indicator; and  
if the consistency indicator meets a predetermined—requirement, calculating a price index of each cruise ship based on the daily price for each one of the one or more-cruise ships.”

The Office action indicates that Jaehn does not disclose “calculating a daily price for each one or more cruise ships, comparing the daily price; and if the comparison exceeds a predetermined value, calculating a price index of each of the one or more cruises.” (Office action, Page 6, Para. 4). Accordingly, Jaehn does not disclose at least, **“calculating ... a daily price for each of the one or more cruise ships using at least one price affecting factor, comparing the daily price ... with the pricing data for that ship over a period of time to determine a consistency indicator, or calculating a price index of each cruise ship based on the daily price...”**

The cited portions of Tuzhilin, as described above, are directed towards, in part, providing recommendations to a user based on the ratings provided by other users who are determined to be similar to the first user. Accordingly, Tuzhilin does not disclose these elements.

Sprenger also does not appear to disclose these elements. The Office action indicates that Sprenger discloses, in part, “that some activities have elements of other components, for example, a cruise includes both travel and lodging ... if the user has chosen a price or price range (i.e. a budget) before reaching the vacation preferences page (or while providing information to such page), the services shown may be determined as services available based on price ...

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services that are returned by VPS 26 throughout the development of the travel plan that, when selected, exceed the budget, cause VPS 26 to prompt the user to reconsider.” However, there is no indication in the Office action that Sprenger discloses **“calculating ... a daily price for each of the one or more cruise ships using at least one price affecting factor, comparing the daily price ... with the pricing data for that ship over a period of time to determine a consistency indicator, or calculating a price index of each cruise ship based on the daily price...”**

Accordingly, neither Jaehn, Tuzhilin, or Sprenger disclose at least these elements. Therefore, claim 10 is believed to be allowable. Since claims 11-15 depend from claim 10 and contain additional elements that are patentably distinguishable over the references of record, claims 11-15 are also believed to be allowable.

#### **Claims 16-18 and 20-23**

Claim 16 recites, in part, **“calculating an expected price of a specific cruise based on the value of at least one price affecting factor of the specific cruise and the regression formula” and “comparing the cruise price being charged with the expected price.”**

The Office action indicates that Jaehn does not disclose these elements. (Office action, Page 4, Para 2.)

The cited portions of Tuzhilin, as described above, are directed in part towards providing recommendations to a user based on the ratings provided by other users who are determined to be similar to the first user. Accordingly, Tuzhilin does not disclose these elements.

Chappel also does not disclose these elements. As described above, Chappel discloses a system that utilizes correlation coefficients in the prediction of business activities. However, the cited portions of Chappel do not disclose at least, **“calculating an expected price of a specific cruise based on the value of at least one price affecting factor of the specific cruise and the regression formula” or “comparing the cruise price being charged with the expected price.”**

Accordingly, neither Jaehn, Tuzhilin, or Chappel disclose at least these elements. Therefore, claim 16 is believed to be allowable. Since claims 17-18 and 20-23 depend, directly


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or indirectly, from claim 16 and contain additional elements that are patentably distinguishable over the references of record, claims 17-18 and 20-23 are also believed to be allowable.

**Conclusion**

In view of the foregoing, it is believed that all claims now pending, namely claims 1-6, 10-18 and 20-23 are in condition for allowance and reconsideration of the Office action dated January 13, 2006 is respectfully requested.

Respectfully submitted,  
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